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EXAMINER

SHINGLES, KRISTIE D

ART UNIT

PAPER NUMBER

2141

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/785,123	Applicant(s) SODERGREN, JASON	
	Examiner Kristie Shingles	Art Unit 2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/01/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9 and 12-16 is/are pending in the application.
4a) Of the above claim(s) 2,3,10 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9 and 12-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

*Applicant has amended claims 1 and 4-9.
Claims 2,3, 10 and 11 have been cancelled. Claims 15 and 16 are new.
Claims 1, 4-9 and 12-16 are pending.*

Drawings

1. The proposed drawing corrections filed on 10/01/2004 have been accepted by the Examiner. The corrections to the drawings will not be held in abeyance.

Specification

2. The proposed specification corrections, filed 10/01/2004, have been accepted by the Examiner. The corrections to the specification will not be held in abeyance.

Claim Objections

3. Per claim 9, the proposed informality correction, filed 10/01/2004, has been accepted by the Examiner. Correction of the claim language will not be held in abeyance.

Response to Arguments

4. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4, 6-9 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kumar et al* (USPN 5,970,069) in view of *Kikinis* (USPN 6,243,596).

a. **Per claim 4, *Kumar et al* teach a multi-protocol adapter for communicating with one or more remote computers over any one of a plurality of protocols, the adapter comprising:**

- an integrated CPU having an embedded operating system, said operating system including software interface modules and device drivers for one or more of interrogating, monitoring, retrieving data, downloading data, recording data, revising data and performing diagnostics over any one of the plurality of protocols, wherein the operating is capable of simultaneously communicating with the one or more computers running different protocols (**Col.1 Line 59-Col.2 Line 32, Col.5 Line 18-Col.6 Line 55 and Col.7 Line 14-Col.9 Line 44; single chip integrated remote access processor comprises a CPU with controlling, data processing and retrieval functions with a serial multi-protocol interface unit**);
- the CPU having simultaneous interaction between at least one multiple device using multiple protocols (**Abstract, Figure 3, Col.4 Lines 33-57, Col.6 Lines 19-38 and Col.7 Line 14-Col.9 Line 44**);
- at least one daughter board having interconnect slots (**Figure 3 and Col.4 Lines 45-52**);
- an interface for interconnection of the at least one daughterboard (**Figure 3 and Col.4 Lines 53-57**);
- a serial port for diagnostics and system maintenance (**Col.6 Lines 52-55**);
- a flash socket for storage of system software (**Col.5 Lines 35-36, Col.6 Lines 28-31, Col.6 Line 56-Col.7 Line 10 and Col.9 Lines 17-36**);

- a slot for connection of a peripheral (**Col.4 Line 38 and Col.5 Lines 30-33**);
- a socket for connection of RAM (**Col.5 Line 35-Col.6 Line 14 and Col.9 Lines 17-36**);
- an interface for connection of system RAM (**Col.5 Line 66-Col.6 Line 14, Col.8 Lines 40-65 and Col.9 Lines 17-36**);
- an interface for connection of mass-storage devices (**Col.6 Line 56-Col.7 Line 10**);
- a battery for clock and configuration memory backup (**Col.6 Lines 38-47 and Col.5 Lines 33-36**);
- a piezoelectric speaker (**Col.25 Lines 43-60**).

Yet fail to explicitly teach an infrared serial interface. However, *Kikinis* discloses use of a battery pack adapter comprising an infrared serial port and speaker (**Col.2 Lines 62-67 and Col.19 Lines 1-7**).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Kumar et al* and *Kikinis* for the purpose of extending the abilities of the system for compatibility with infrared devices via the infrared interface; because it would permit and support communication with devices communicating via an infrared interface.

b. **Claim 1** contains limitations that are substantially equivalent to claim 4 and is therefore rejected under the same basis.

c. **Per claim 6**, *Kumar et al* teach the multi-protocol adapter according to claim 1, further comprising: means for defining communication routines between the adapter and a client via a host device, and means for communicating between the adapter and the client after definition of communication routines between the adapter and the client (**Figure 2, Col.4 Lines**

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19-44 and Col.6 Line 56-Col.7 Line 10; the remote access processor chip interface connectivity implements routines and protocols for communication between hosts, servers, internet service providers and peer clients).

d. **Per claim 7, *Kumar et al* teach the multi-protocol adapter according to claim 1, further comprising: a TCP/IP connection established between two software elements, the connection of serial multiplex network messages between software entities being generalized without knowledge of a specific type of multiplex network (Col.4 Lines 45-52, Col.5 Lines 47-65, Col.6 Lines 31-38 and Col.27 Lines 36-62; provision for TCP/IP connectivity).**

e. **Per claim 8, *Kumar et al* teach the multi-protocol adapter according to claim 1, further comprising: a server program handling communications between a source entity and a destination entity (Figure 2, Col.4 Line 33-Col.5 Line 17 and Col.34 Lines 48-67; provision for and implementation with server handling communications between source and destination).**

f. **Per claim 9, *Kumar et al* teach the multi-protocol adapter according to claim 1 further comprising: at least one of message scheduler, a message responder, a message filter or a script loader (Col.8 Lines 40-57 and Col.26 Lines 50-65; provisions for a message filter and scheduler).**

g. **Per claim 12, *Kumar et al* teach the multi-protocol adapter according to claim 1 further comprising: an on-board web server (Figure 2a, Col.4 Lines 18-44, Col.5 Lines 8-16, Col.7 Lines 1-10 and Col.34 Lines 48-67; remote access processor chip comprises connectivity with network server and can be integrated within a PC or portable PC,**

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therefore able to be implemented within/on-board a server or with an internet service provider).

h. **Per claim 13, *Kumar et al* teach the multi-protocol adapter according to claim 12 further comprising: communication between users of the adapter and the adapter via a web browser technology (Col.6 Lines 31-35 and Col.27 Lines 36-58; provision for use with Internet/Intranet applications, the Internet is a web browser technology).**

i. **Claim 14 is substantially similar to claims 12 and 13 and is therefore rejected under the same basis.**

j. **Per claim 15, *Kumar et al* teach the multi-protocol adapter according to claim 1, wherein the plurality of protocols are selected from the group consisting of controller area network protocols, J1850 protocols, key word protocol 2000, and UART-based protocols (Col.4 Lines 45-52, Col.5 Lines 31-65, Col.6 Lines 48-55 and Col.27 Lines 15-62; support and compatibility with controller area network protocols and UART-based protocols).**

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kumar et al* (USPN 5,970,069) and *Kikinis* (USPN 6,243,596) and in further view of *Treyz et al* (USPN 6,526,335).

Per claim 5, *Kumar et al* and *Kikinis* jointly disclose the multi-protocol adapter of claim 1 as applied above, yet fail to explicitly teach the multi-protocol adapter according to claim 1, wherein the embedded operating system comprises Linux operating system. However, *Treyz et al* disclose an automobile personal computer system with support for the Linux operating system (Col.18 Lines 44-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Kumar et al*, *Kikinis*, and *Treyz et al* for the purpose of extending the abilities of the system for compatibility with the Linux operating system interface; because the Linux operating system is a freely-distributed open source operating system offering a popular alternative to proprietary operating systems.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kumar et al* (USPN 5,970,069) and *Kikinis* (USPN 6,243,596) and further in view of *Parmee et al* (USPN 5,659,471).

Per claim 16, *Kumar et al* and *Kikinis* jointly disclose the multi-protocol adapter of claim 1 as applied above, yet fail to explicitly teach the multi-protocol adapter according to claim 1, wherein the daughter board interface modules are selected from the group consisting of SAJ1850, UBP, CCD, SCI, CAN, SAEJ1587, J1939, J2284, J2411, ISO 11992, 9141-2 and KWP2000 modules. However, *Parmee et al* disclose use of a controller implemented within a vehicle compatible with the SAE J1922, SAEJ 1939 standards and other protocols (Col.3 Lines 28-31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Kumar et al*, *Kikinis*, and *Parmee et al* for the purpose of extending the abilities of the chip/adapter to function in an automobile controller system having interface protocols compatible with various types of vehicles; because support for the additional protocols would permit use of the chip/adapter in various types of vehicles.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. *Krause et al* (USPN 5,455,827) disclose a multi-processing and direct routing of signaling protocols in voice communication channels.
- b. *Smyers* (USPN 6,721,859) discloses a multi-protocol media storage device implementing protocols optimized for storing and retrieving asynchronous and isochronous data.
- c. *Chakraborty et al* (USPN 5,839,534) disclose a system and method for intelligent cruise control using standard engine control modes.
- d. *Lesesky et al* (USPN 6,127,939) disclose systems and methods for monitoring and controlling tractor/trailer vehicle systems.
- e. *Bellinger* (USPN 6,387,011) discloses a system for controlling an internal combustion engine in a fuel-efficient manner.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds


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SUPERVISORY PATENT EXAMINER